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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/609,046      | 06/27/2003  | Mustafa Pinarbasi    |                     | 3478             |

7590 04/05/2006  
Hoyt & Knight  
PO Box 1320  
Pioneer, CA 95666

EXAMINER

TUGBANG, ANTHONY D

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3729

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary****Application No.**

10/609,046

**Applicant(s)**

PINARBASI, MUSTAFA

**Examiner**

A. Dexter Tugbang

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 2-5,8-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The applicant(s) response filed on January 23, 2006 has been fully considered and made of record.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. The rejections are hereby repeated below merely for the convenience of the applicant(s).

### ***Election/Restrictions***

3. Claims 2-5 and 8-17 continue to stand as being withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on August 15, 2005.

### ***Claim Rejections - 35 USC § 103***

4. Claims 1, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinarbasi 5,883,764, referred to hereinafter as Pinarbasi'764, in view of Dates et al 3,484,284.

Pinarbasi'764 discloses a method of fabricating a transducer comprising: forming a magnetic sensor which is a spin valve (see Fig. 4); forming first and second leads 440, 445 for the sensor by the following steps: fabricating first and second thin film tantalum pads 446 in electrical contact with the magnetic sensor at first and second locations, the first and second

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locations being noncontiguous; fabricating thin film chromium pads 447 on the first and second tantalum pads; and fabricating thin film tantalum 448 pads on the thin film chromium pads.

Regarding Claim(s) 6, Pinarbasi'764 further teaches that the first and second locations are on opposing areas of an upper surface (surface area of free layer 410) of the magnetic sensor and where the first and second tantalum pads are in physical contact with the upper surface of the magnetic sensor (see Fig. 4).

Regarding Claim(s) 7, Pinarbasi'764 further teaches forming first and second hard bias structures 430, 435 disposed on opposing sides of the sensor and where the first and second leads are respectively overlaid on the first and second hard bias structures and the first and second leads extend onto an upper surface (top surfaces of 430, 435) of the magnetic sensor and are in physical contact with the upper surface of the magnetic sensor.

In summary above, Pinarbasi'764 teaches substantially all of the limitations of the claimed invention except that the material of the pads formed on the thin film chromium pads is "rhodium".

Dates teaches that leads can be formed of a conductive material, or electroconductive material, with alternative materials of rhodium or tantalum (see col. 4, lines 2-10) for the advantages of providing high power capacity and low contact resistance (see col. 3, lines 2-8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the rhodium material of Dates for the tantalum material formed by the tantalum pads on the thin film chromium pads of Pinarbasi'764, to advantageously provide an alternative conductive material and to provide high power capacity and low contact resistance for the spin valve.

***Response to Arguments***

5. The applicant(s) arguments filed on January 23, 2006, have been fully considered but they are not persuasive.

In regards to the merits of Pinarbasi'764 and Dates et al, it appears that the applicant(s) believe that these references cannot be combined because Dates does not teach how to make leads for a spin valve.

The examiner traverses to the extent the both Pinarbasi'764 and Dates share a common inventive concept, and are analogous, as to solving the problems associated with forming leads or pads (e.g. circuits in general) with a material of tantalum. Dates suggest that as an alternative material to tantalum for pads having electroconductivity, that rhodium can be used in place of it. Since each is solving the very same problem, the examiner's position is that one of ordinary skill in the art would look to Dates for the suggestion of alternative materials for other associated advantages. Furthermore, the test for obviousness is not whether the features of a secondary reference (e.g. Dates) may be bodily incorporated into the structure of the primary reference (e.g. Pinarbasi'764); nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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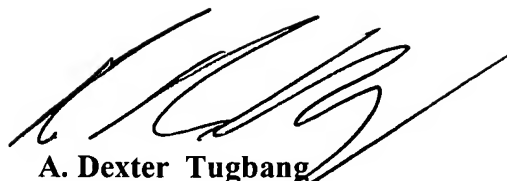
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 571-272-4570. The examiner can normally be reached on Monday - Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'A. Dexter Tugbang', is written over the printed name.

**A. Dexter Tugbang**

**Primary Examiner**

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March 29, 2006